NOTE

Chapter 20 contains emergency rescue and
mishap response information for the following aircraft:

USN	**AV-8B (TAV-8B)**

CHAPTER 20

U.S. NAVY

ATTACK

AEROSPACE EMERGENCY RESCUE AND MISHAP RESPONSE INFORMATION

20-1. INTRODUCTION AND USE.

20-2. This section contains emergency rescue and mishap response information illustrations in alpha-numerical order relative to type and model of aircraft. This arrangement of illustrations is maintained from Chapter 4 throughout the remainder of the publication.

20-3. GENERAL ARRANGEMENT.

20-4. Aircraft type designation has been positioned in the upper right corner of the horizontal illustration for rapid identification. Additional aids to rapid orientation are:

a. Recent technological advances in aviation have caused concern for the modern firefighter. Aircraft hazards, cabin configurations, airframe materials, and any other information that would be helpful in fighting fires, the locating and rescue of personnel will be added as the information becomes available.

b. Suggested special tools/equipment are listed in the upper left corner, on the Aircraft/Entry page of each listed aircraft.

c. Procedural steps covering emergency/normal entrances, cut-ins, engine/APU shutdown, safetying ejection/escape systems, and aircrew extraction are outlined on the left side of each page with coordinated illustrations on the right.

d. Illustrations located on right side of pages are coordinated with text by numerals and small letters depicting both paragraph and subparagraph on the page.

e. Each illustration is consistently colored and/or pattern keyed to highlight essential emergency rescue information.

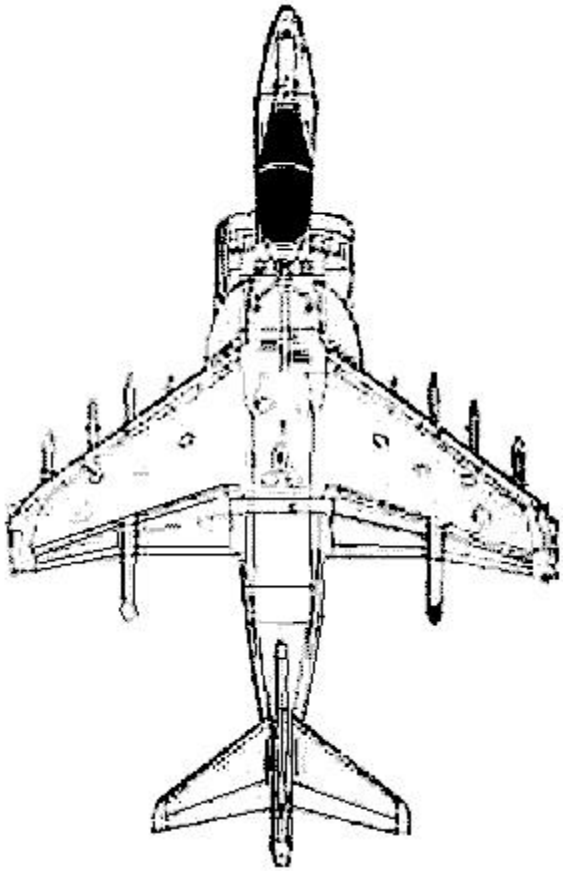
f. Details are pulled directly from the illustration to highlight an area, thus eliminating unnecessary searching for desired information.

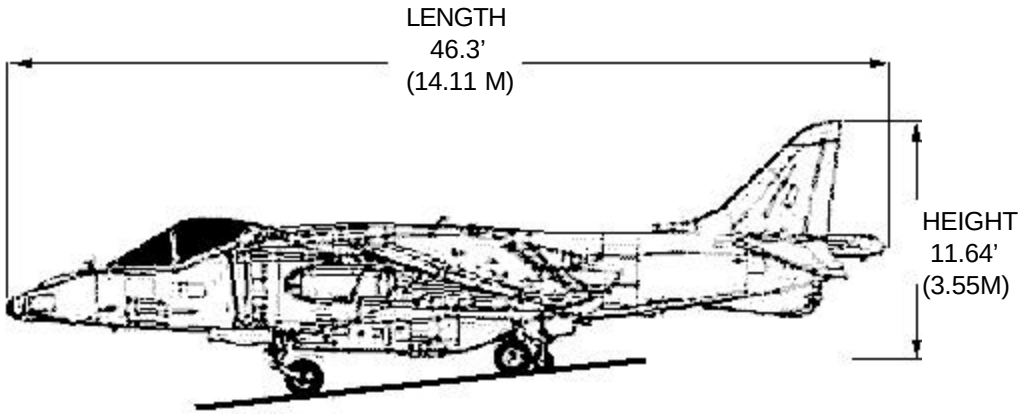
AIRCRAFT PAINT SCHEME

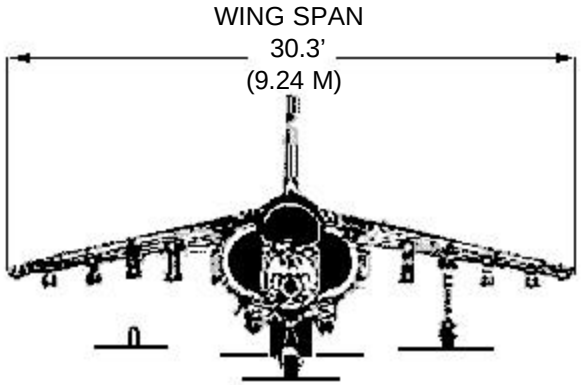
AIRCRAFT DIMENSIONS

NOTE:

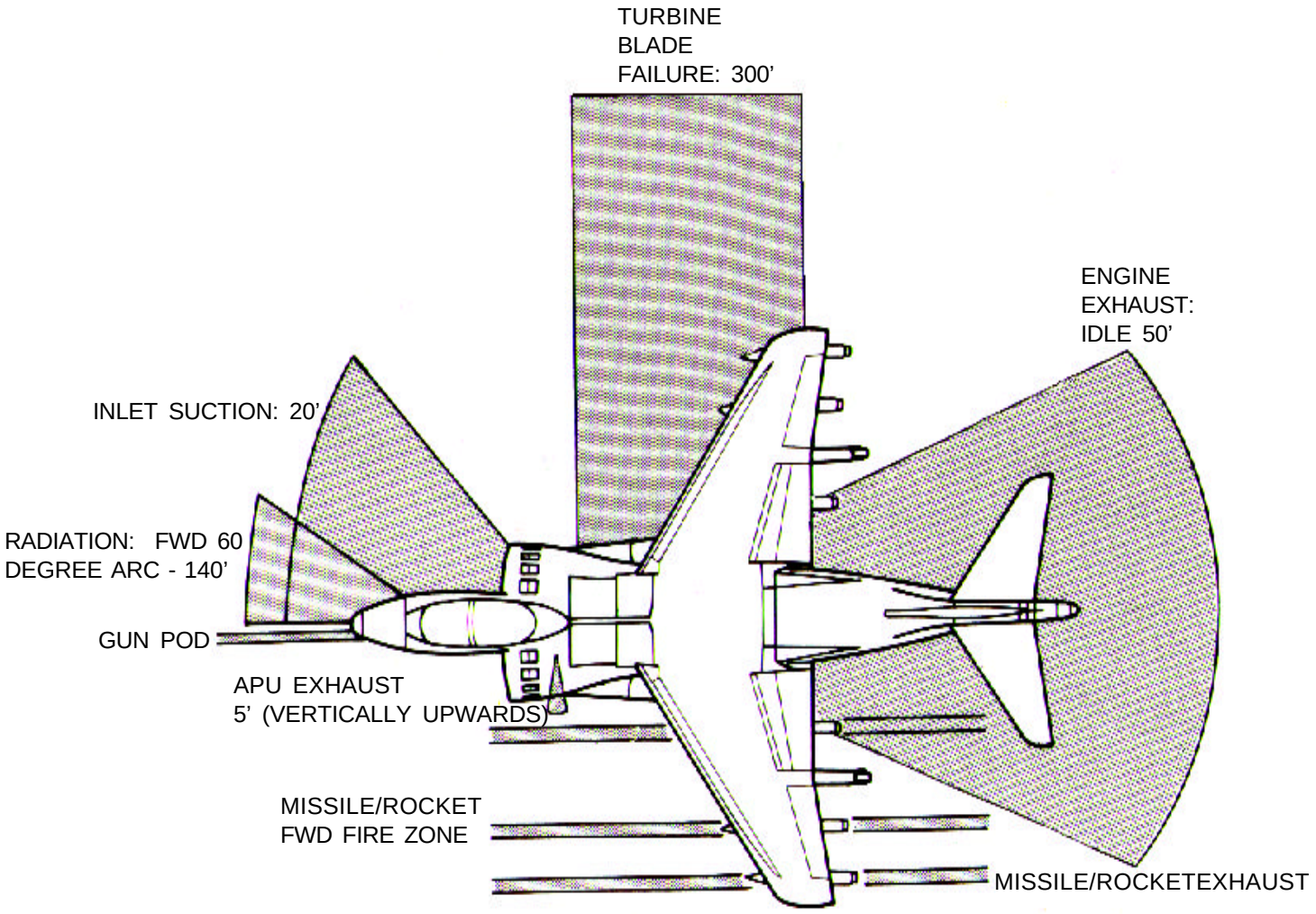
The AV-8B has one crewmember while the TAV-8B has two.







AIRCRAFT HAZARDS



AIRCRAFT HAZARDS-Continued

ARMAMENT LOCATIONS

WARNING

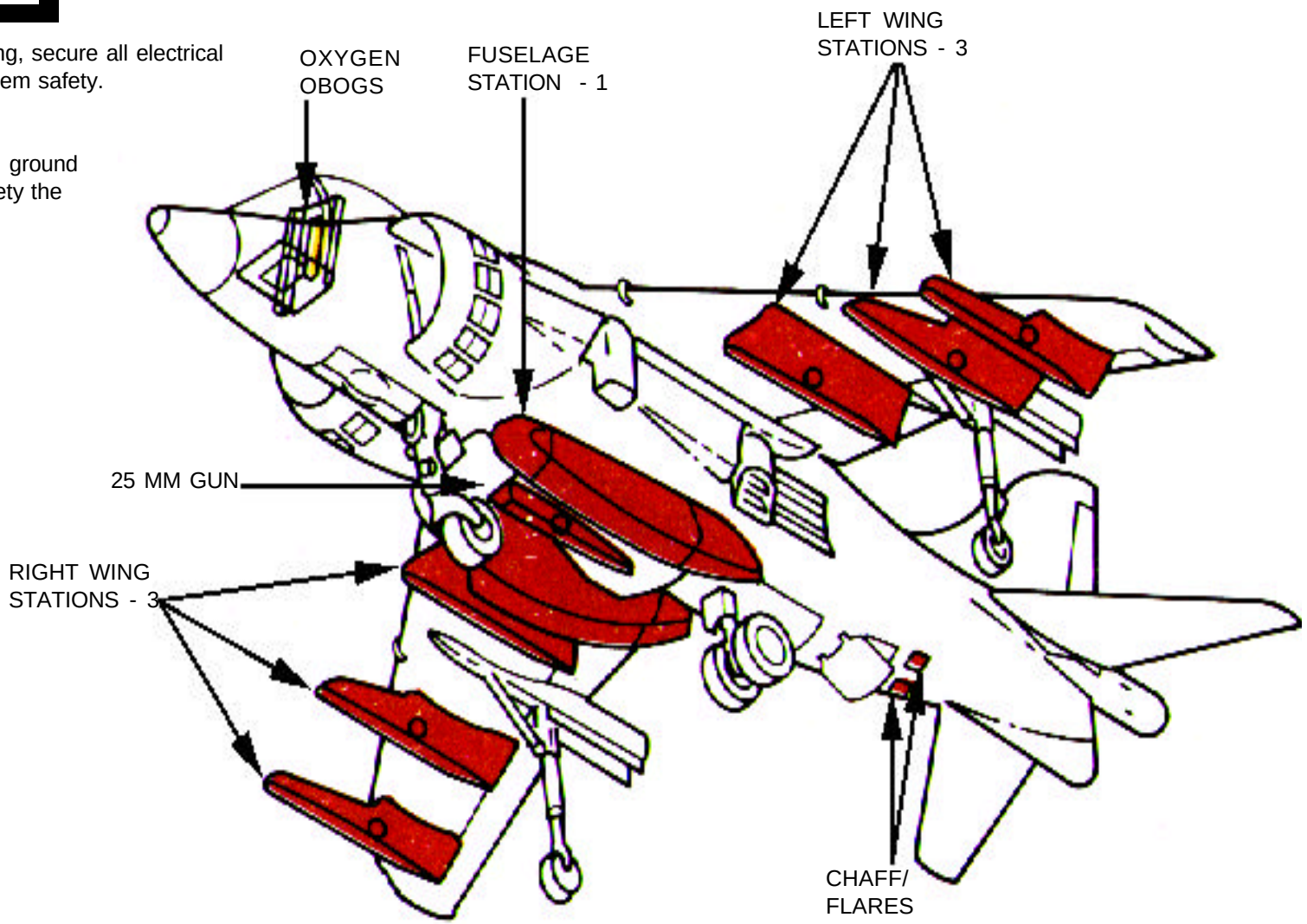
Wing and fuselage stations have pylon ejector cartridges.

WARNING

In the event of wheels-up landing, secure all electrical power to ensure armament system safety.

NOTE:

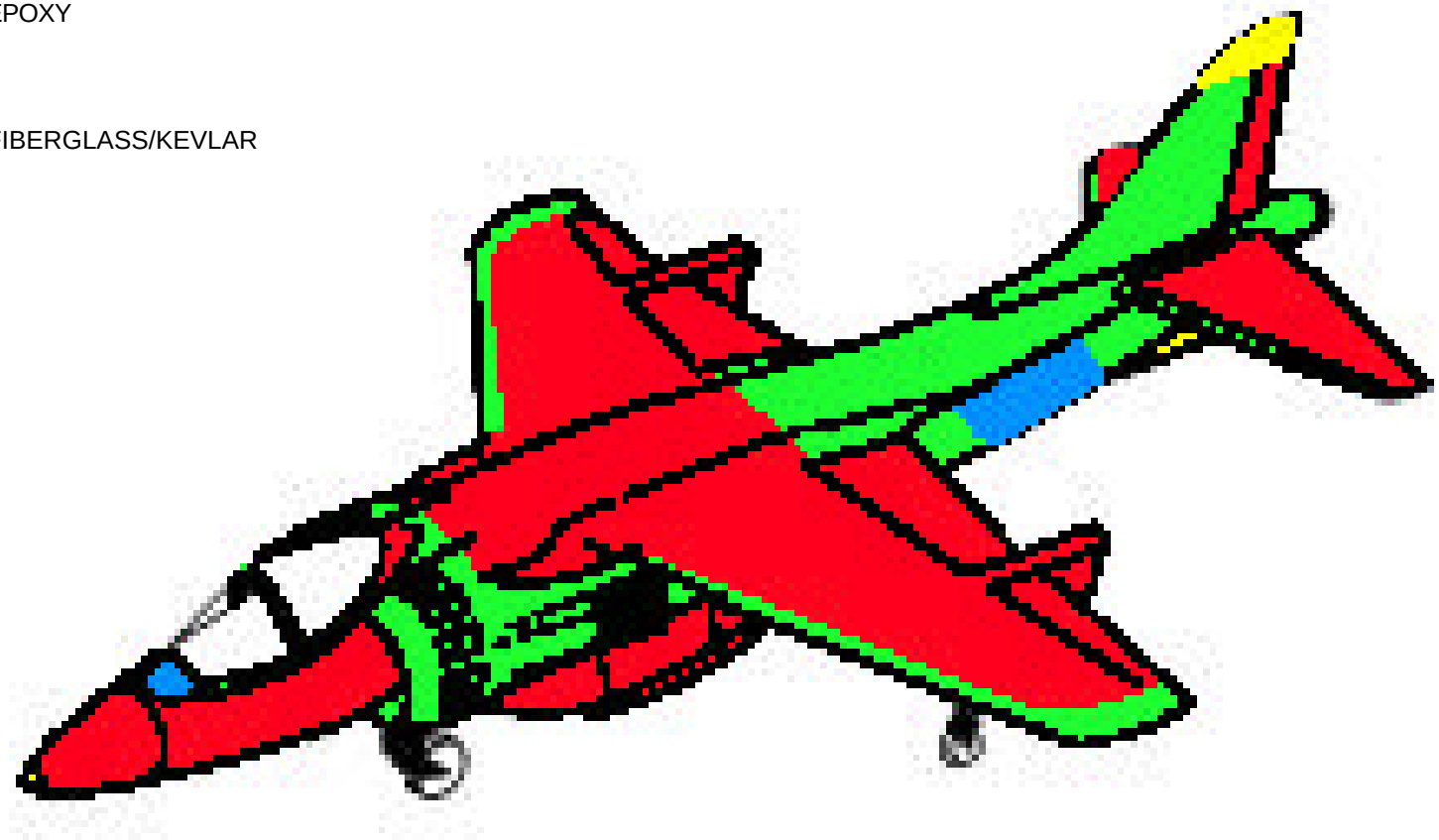
In normal wheels down landing, ground wheels down switches, and safety the armament systems.



AIRFRAME MATERIALS

LEGEND

- ALUMINUM
- STEEL
- CARBON EPOXY
- TITANIUM
- OTHER - FIBERGLASS/KEVLAR



SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Crash Ax
1 1/16 Inch Open End Wrench
Fire Drill II

AIRCRAFT ENTRY

1. NORMAL ENTRY

NOTE:
Canopy is mechanically actuated by an external release handle located on right side of fuselage below windshield.

a. To open, press latch on normal canopy release handle and pull to unlatch canopy and retractable footstep. Apply downward pressure on step and canopy will fully open.

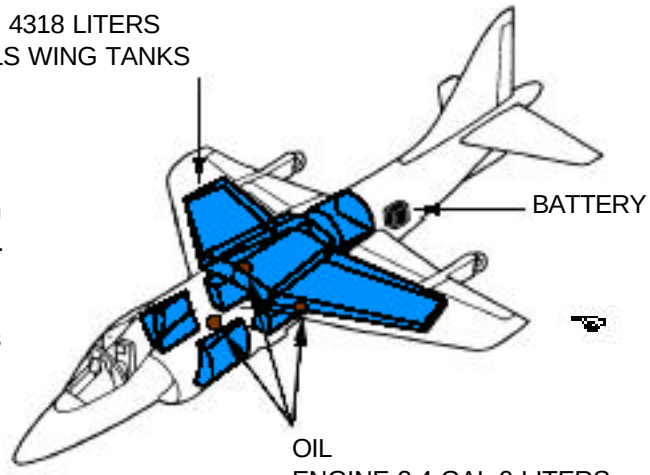
NOTE:
If retractable footstep cannot be extended, canopy opens without restriction from footstep for about 3 inches. The right hand canopy cable assembly can then be disengaged from footstep at detent assembly by a hard pull on handles provided on canopy arch. With footstep disengaged, canopy is free to be opened.

b. Two additional steps/handholds are located on right side of fuselage. To extend, push buttons on top part of steps/handholds.

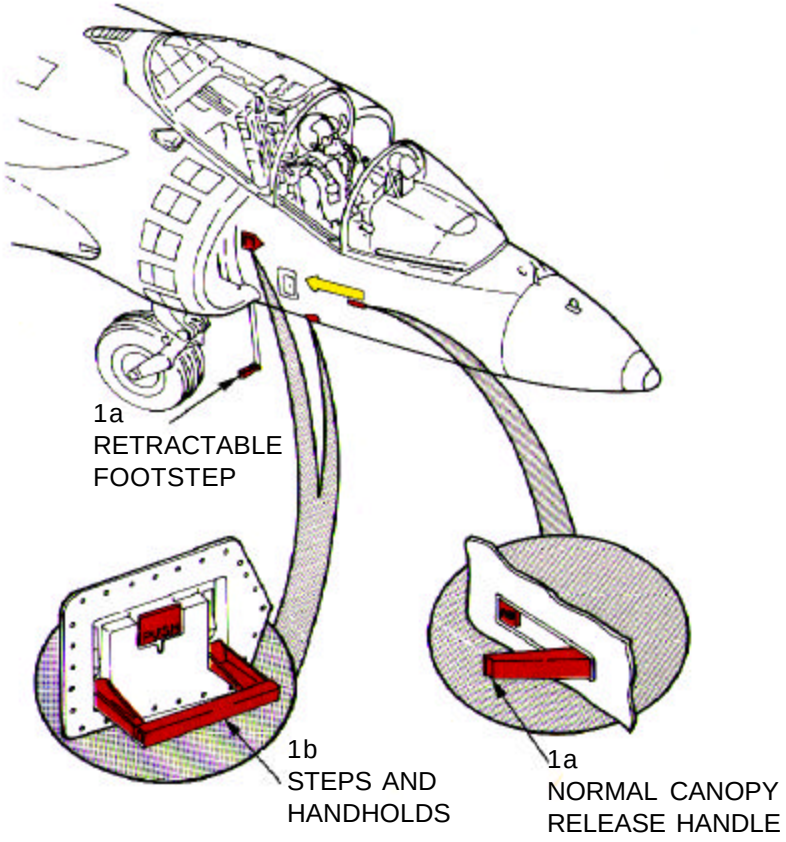
FUEL QUANTITIES:
INTERNAL 1141 GALS 4318 LITERS
EXTERNAL 4-300 GALS WING TANKS
1135 LITERS

NOTE:
Pneumatic system pressure3000 PSI.

NOTE:
Oxygen system is OBOGS.



OIL
ENGINE 2.4 GAL 9 LITERS
HYDRAULIC 7.5 GAL 28 LITERS



AIRCRAFT ENTRY - Continued

2. Emergency Entry

NOTE:
Canopy can be shattered by using external fracturing handles located on both sides.

WARNING

Fracturing system (pyrotechnic) should not be used if flammable liquids or fumes are present in area.

WARNING

Particles from a blown canopy may exceed 3 sq. in. and cover a blast area of approximately 25 feet.

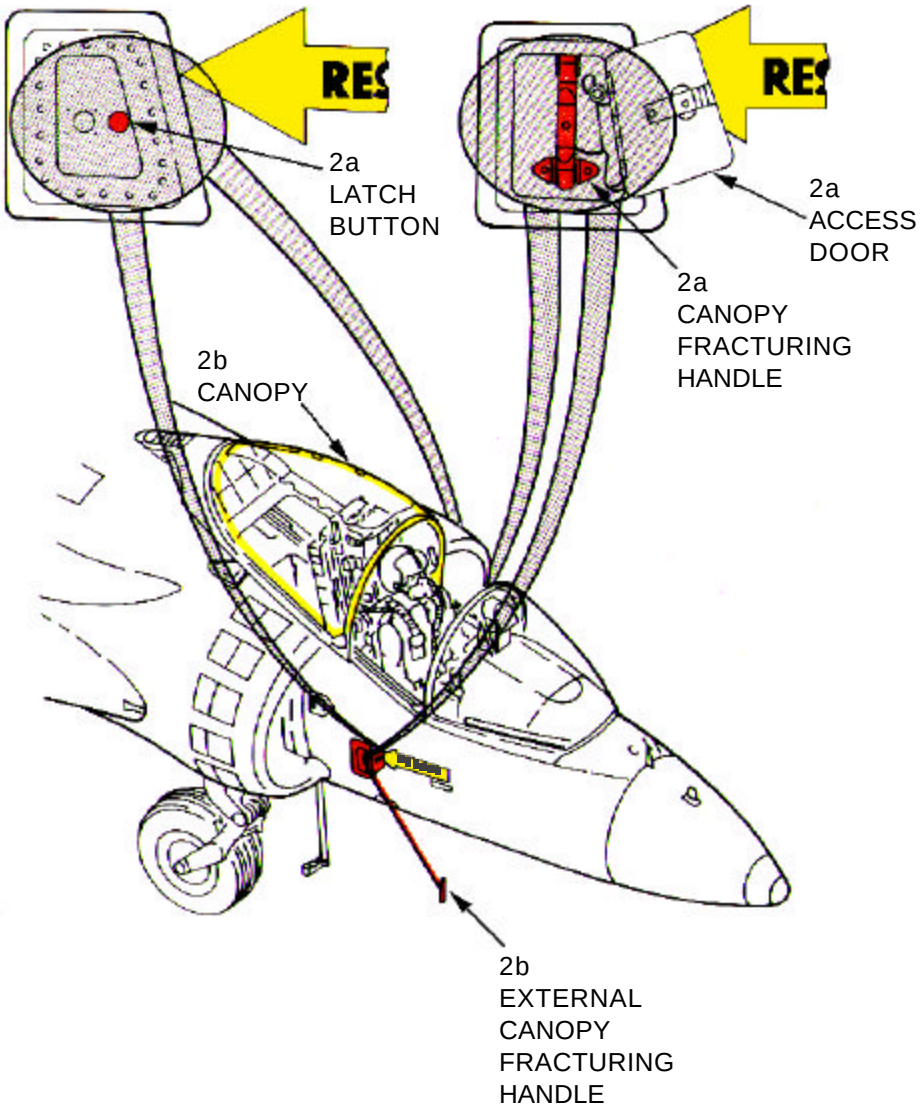
a. To access handle, push latch button to open door, grip handle and remove from spring clips.

b. To fracture canopy, hold handle, run forward to extend cable approximately 40 inches, face away and jerk handle.

NOTE:
Some aircraft are not equipped with an external fracturing handle.

3. CUT-IN/FORCED ENTRY

a. Canopy is made of acrylic plastic and may be cut with a power rescue saw or crash ax. Cut along canopy frame.



CANOPY SAFETY

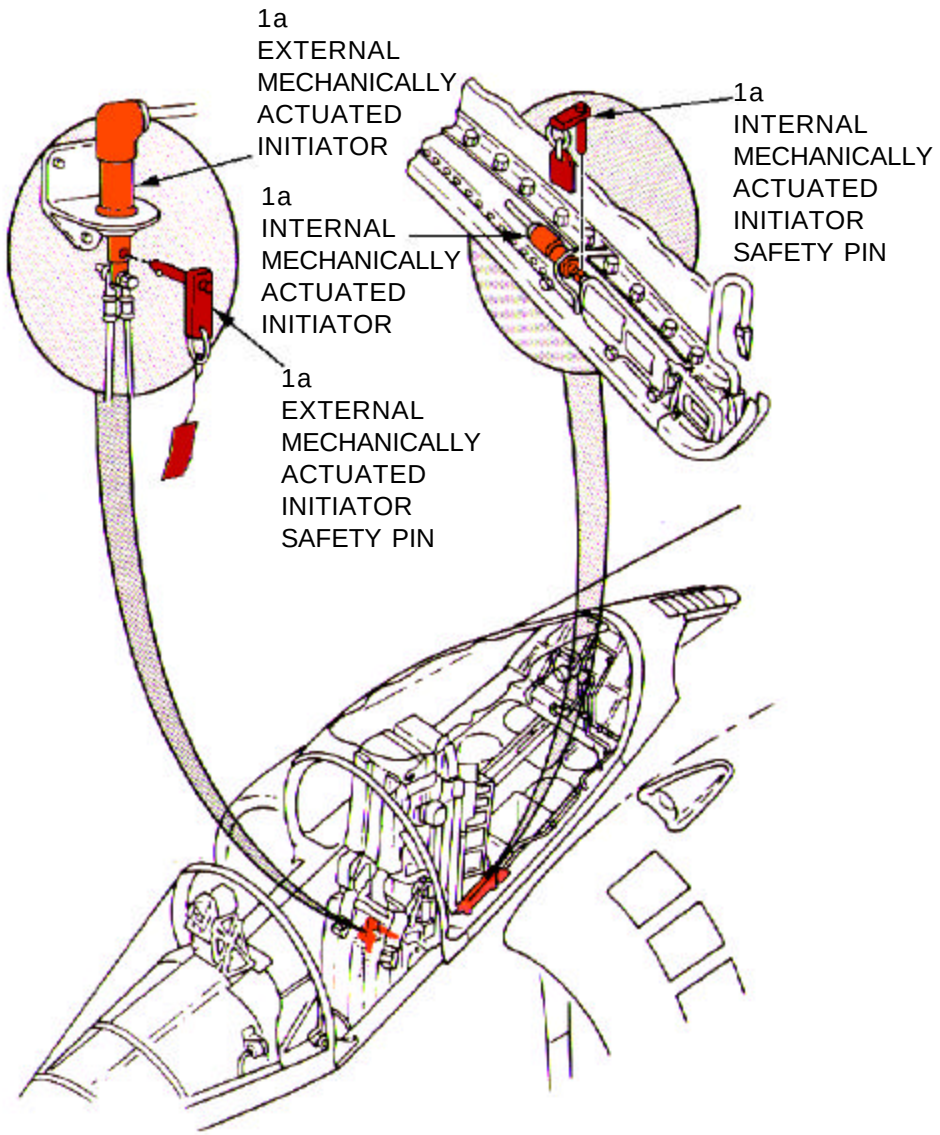
NOTE:

Canopy has an explosive detonator. With canopy open, rescue personnel may be seriously injured if ignited.

1. SAFETYING CANOPY INITIATORS

a. Insert safety pin in external mechanically actuated initiator.

b. Insert safety pin in internal mechanically actuated initiator.



ENGINE AND APU SHUTDOWN AND BATTERY LOCATION

1. NORMAL AND EMERGENCY ENGINE AND APU SHUTDOWN

NOTE:
Engine may be shut down using the throttle or fuel shutoff controls. GTS/APU may be shut down using APU generator switch or battery switch and APU generator switch.

a. Raise throttle finger lifts and move engine throttle lever grip assembly aft to OFF position. When moving throttle aft, throttle finger lifts must be used in order to shut down aircraft.

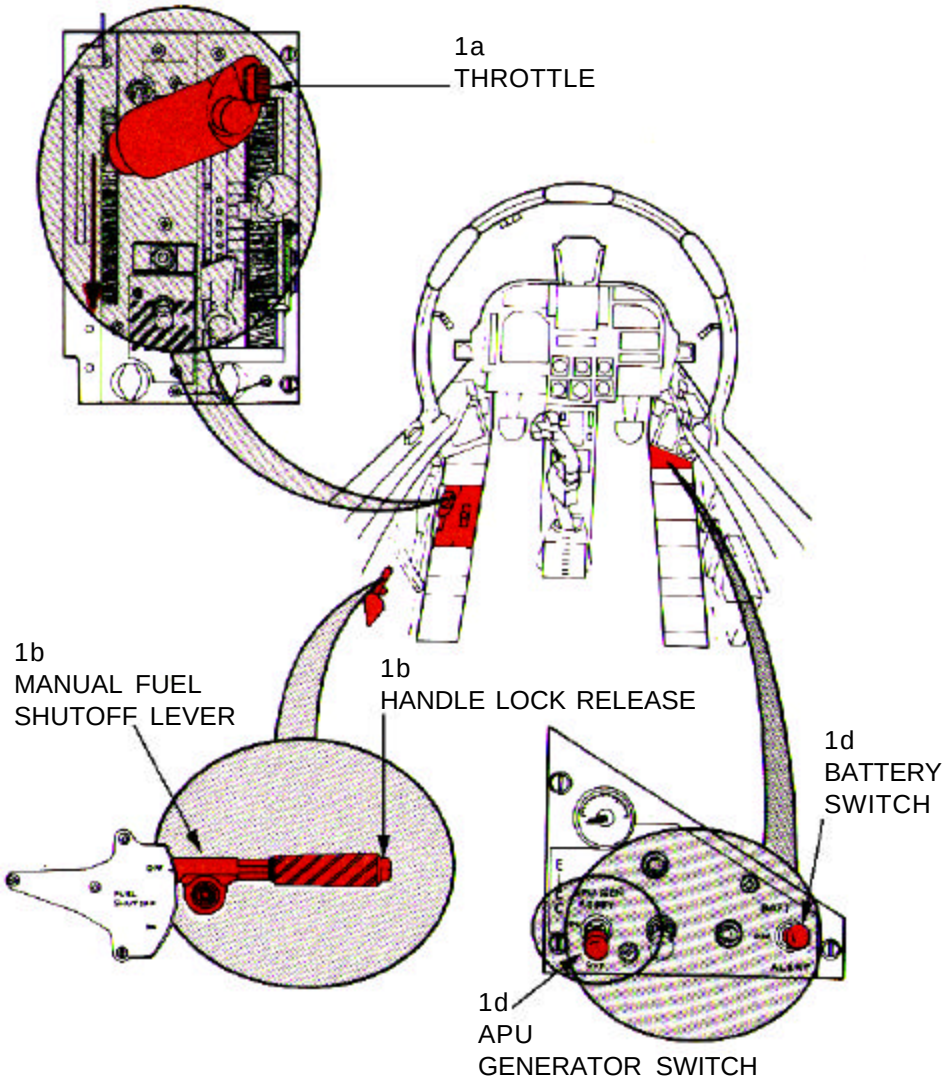
b. Press handle lock release, located on end of manual fuel shutoff lever and move lever to OFF position. Use of fuel shutoff lever will not immediately shut down aircraft.

c. Place APU generator switch, located on electrical control panel, in the OFF position

d. Place battery switch, located on electrical control panel in OFF (center) position. Next, set and hold APU generator switch in reset position until GTS/APU shuts down.

2. BATTERY LOCATION

a. The battery is located on the underside of the fuselage, aft of speed brake in door 60. Disconnect battery if time permits or battery switch in cockpit is damaged or inaccessible. (See page AV-8B.4.)



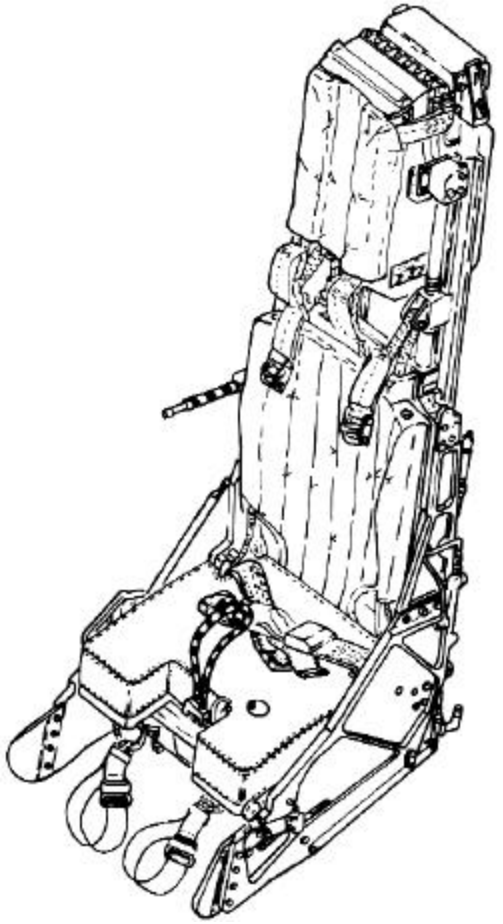
STENCIL SJU-4A/13/14 EJECTION SEAT

The STENCIL SJU-4A/13/14 is a catapult and rocket thrust ejection seat that provides support and necessary environmental equipment for crewmembers during flight, and a means of fast, safe escape during emergency flight conditions. The seat assembly incorporates features permitting seat ejection at ground level, at zero airspeed as well as during emergency flight conditions.

The basic structure of the seat consists of lightweight aluminum, built to withstand high G-loads, support all of the components, and form the main framework for the seat.

The basic components of the seat assembly include catapults, seat back rocket motors, gas powered inertia reel, parachute, survival equipment, and seat stabilization system.

This ejection seat presents definite hazards which may cause fatal injuries to uninformed and careless personnel. Firefighting/rescue personnel must become thoroughly familiar with the locations and the safetying of the seat components in both normal and emergency conditions.



STENCIL SJU-4A/13/14
EJECTION SEAT SAFETYING

1. EJECTION SEAT SAFETYING NORMAL AND EMERGENCY

NOTE:
The AV-8B uses the SJU-4A seat and the TAV-8B uses two SJU-13/14 seats.

NOTE:
Immediately upon gaining access to the aircraft cockpit, if time permits and no hazardous conditions exist, proceed with seat safetying procedures.

a. Pull down and spring loaded end of the ground safety control handle and lift handle to the full up and locked position.

WARNING

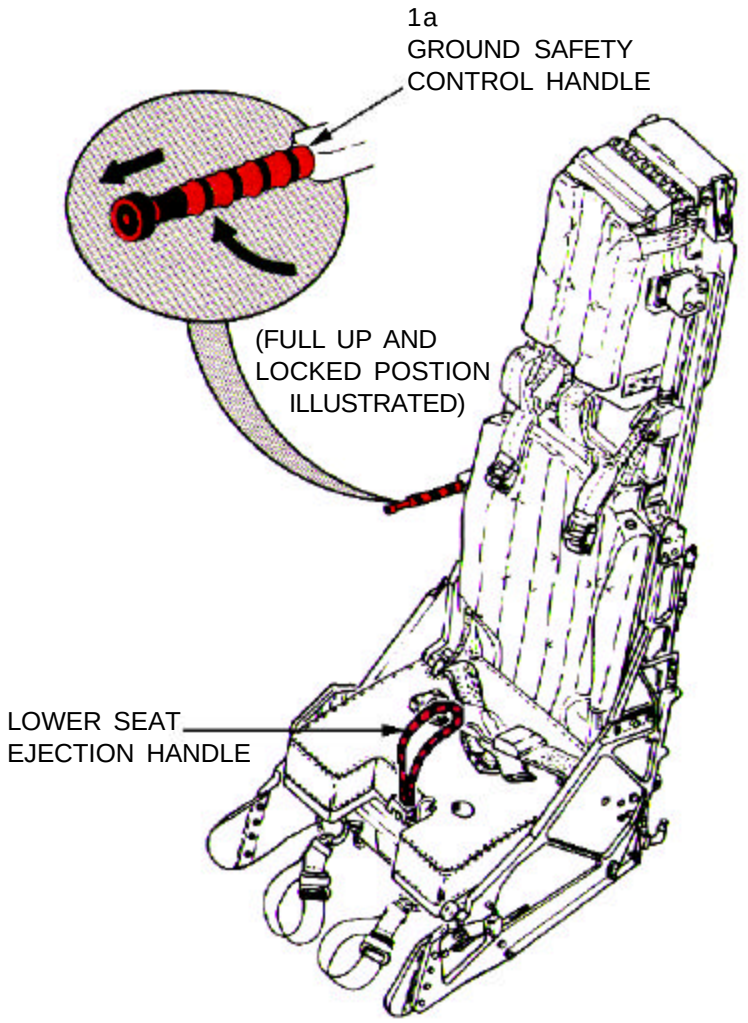
Ground safety control handle must be in full up and locked postion to positively safety the seat. Seat will remain armed in any other position.

WARNING

In multi-seat aircraft, all ejection seats must be safetied due to command ejection possibility.

WARNING

When removing personnel from ejection seats, do not allow crewmembers or rescue personnel to become entangled in lower seat ejection handle.



AIRCREW EXTRACTION

1. AIRCREW EXTRACTION

NOTE:

The pilot is attached to the seat by the use of an integrated harness. Additionally, the oxygen/ communication lead is connected to the seat pan. The anti-G suit hose is connected to an outlet on the left handl console.

a. To remove the oxygen mask: Pull down on release tabs on either side of mask.

b. To remove the oxygen/communication lead: Disconnect the lead from from the connection by pulling up on round collar while pulling apart the connection.

c. Disconnect the G-suit hose: Pull the anti-G suit hose from left hand console.

NOTE:

Leg garters are secured around legs by a quick disconnect. Leg restraint lines attach to garters using the same type of quick disconnect.

d. To disconnect leg garters: Apply pressure to both sides of the quick disconnect attaching leg restraint lines to garter (one each leg).

e. To disconnect remaining restraints: Release lap belt and two shoulder harness koch fitting.

2. EMERGENCY RELEASE

a. Squeeze and pull emergency restraint release handle, located on forward right hand side of seat, up and fully aft to locked position. This safeties the ejection initiation system and releases the inertia reel shoulder straps and leg restraints. However, the parachute and survival kit remain attached to the pilot. Repeating step 1e will release parachute and survival kit from crewmember.